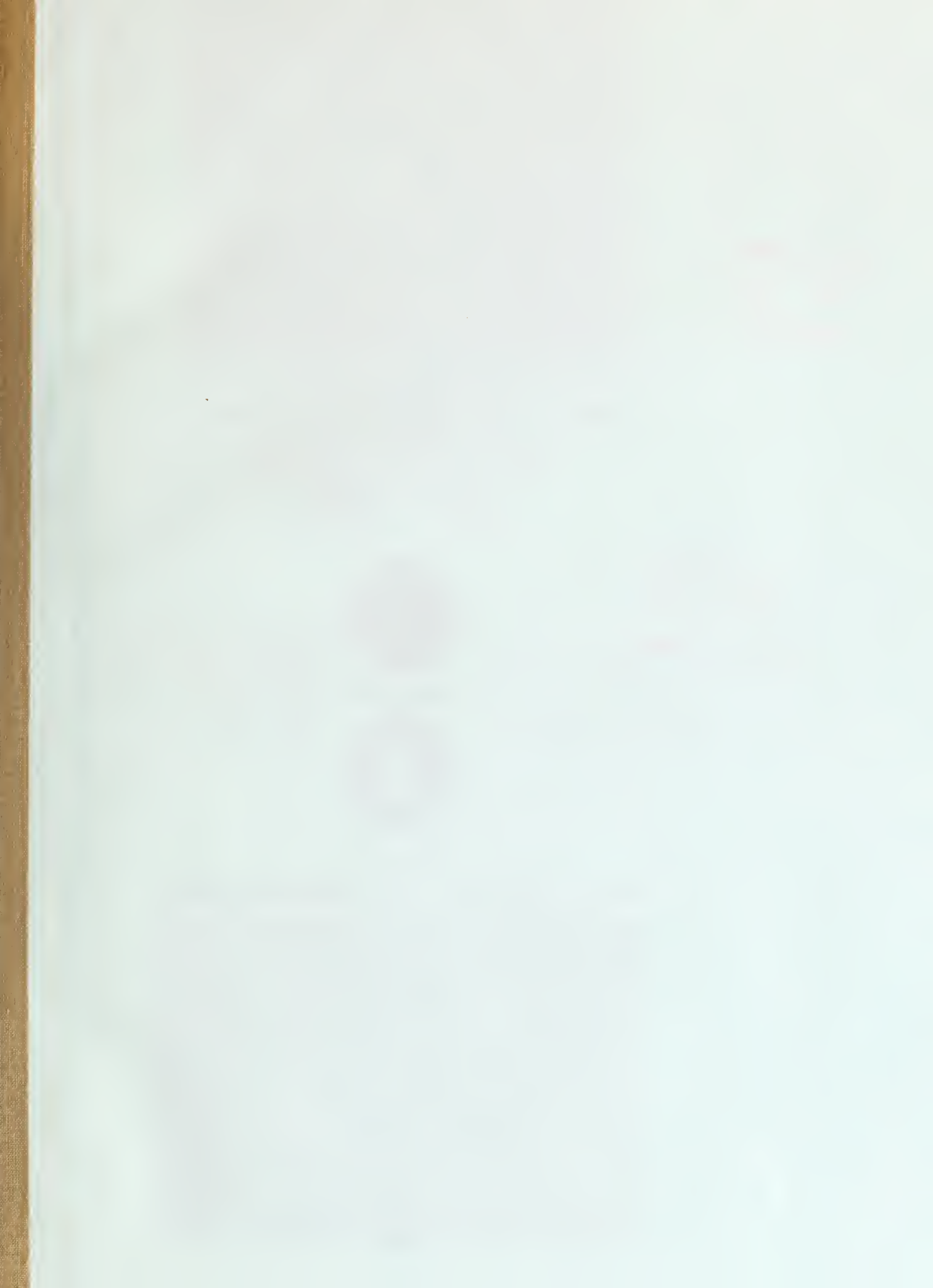


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**1970 VEGETABLE
VARIETY RECOMMENDATIONS
AND REPORT OF
1969 VEGETABLE AND
SMALL FRUIT
VARIETY TRIALS**

*J.W. Courter
J.S. Vandemark
H.J. Hopen
C.C. Zych
C.C. Doll*



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DEPARTMENT OF HORTICULTURE**

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THE 1969 REPORT

This report contains vegetable variety recommendations for 1970 and the results of variety evaluations conducted in 1969 by the Extension Horticulture Staff in Vegetable and Small Fruit Crops. The demonstrations were conducted at the following University of Illinois experimental farms:

Dixon Springs Agricultural Center, Simpson
Pomology Research Center, Urbana
Vegetable Research Greenhouses, Urbana

We express our appreciation to the following companies and universities who furnished seed for our trials:

SEED SOURCES

Asgrow Seed Co., Orange, Connecticut
Geo. J. Ball, Inc., West Chicago, Illinois
Roy Burghart, Greenville, Michigan
W. Atlee Burpee Co., Clinton, Iowa
D. V. Burrell Seed Co., Rocky Ford, Colorado
Cleveland Greenhouse Assoc., Cleveland, Ohio
Dessert Seed Co., El Centro, California
Farmer Seed and Nursery, Faribault, Minnesota
Ferry Morse Seed Co., Inc., Mountain View, California
Grand Rapids Growers, Inc., Grand Rapids, Michigan
Joseph Harris Co., Inc., Rochester, New York
Keystone Vegetable Seeds, Hollister, California
Letherman's, Canton, Ohio
Northrup, King and Co., Minneapolis, Minnesota
Peto Seed Co., Saticoy, California
Robson Seeds, Inc., Hall, New York
Rogers Brothers Seed Co., Idaho Falls, Idaho
Standard Seed Co., Kansas City, Missouri
Stokes Seeds Ltd., St. Catharines, Ontario, Canada
Otis S. Twilley, Salisbury, Maryland

Michigan State University, East Lansing, Michigan
Ohio State University, Columbus, Ohio
Ontario Dept. of Agriculture, Vineland Station, Ontario, Canada
Rutgers University, New Brunswick, New Jersey
University of Missouri, Columbia, Missouri
Purdue University, Lafayette, Indiana

CHOOSING VEGETABLE VARIETIES

Many of the vegetable varieties grown today have been recently introduced. New varieties are important to the grower who wants to move ahead in his business. New varieties may offer resistance to diseases, improved vigor, better quality, better storage or shipping, greater uniformity and adaptability for mechanical harvest. Improved hybrids and varieties combine many of these factors to the advantage of both the seed company and the grower. Hybrids, first developed in corn and tomatoes, are now common in asparagus, cabbage, cucumbers, eggplant, muskmelons, onions, peppers, summer squash, watermelons, and many other vegetables.

One of the newest developments is the gynoecious hybrid cucumber. Gynoecious hybrids produce mostly female flowers, rather than a combination of first male flowers and later female flowers. The result is earlier, more uniform and sometimes greater production. The seed producer usually blends in seed of a pollinator for fruit set.

Choosing varieties is not easy. Seed catalogs offer hundreds of selections, each with appealing descriptions and attractive photographs, making the choice even more difficult. No single variety, new or old, will be suitable for every grower under the diverse climatic and marketing conditions in Illinois. Growers are encouraged to try new varieties and to compare them with their standard and most reliable ones. The following tips will help growers to evaluate their own trials.

Choose varieties for trial - Limit the number of new varieties. Select them on the basis of the characteristics most important to you -- these might include plant type, fruit type, relative maturity, uniformity, disease resistance, or yield.

Choose a location - Whether the trial is to be a few feet of row or a larger area, locate it in the same field with your standard varieties with which you will compare. Select a location, uniform in soils and drainage, where all varieties will receive the same spray and cultural treatments. Avoid locations along the edge of the field where uncontrollable factors may influence the results.

Planting the trial - Plant all the varieties on the same day and in the same manner. Be careful not to mix seeds in the planter box or to mix transplants when carrying them to the field. Supervise the planting.

Mark the trial - Mark the exact location in the field. Draw and keep a map of the location. Carefully identify the rows in the field and on the map.

Keep records - Make notes and carefully take harvest records based on the important characteristics for which you conducted the trial. Don't rely entirely on memory when trying to make variety decisions next year. The better the records the more you will learn.

The following publications furnish additional variety information:

Seed and Plant Sources - Available from the Department of Horticulture,
124 Mumford Hall, University of Illinois,
Urbana, Illinois 61801

Vegetable Seed Companies, Hort. VG 10
Sources of Small Fruit Plants, Hort. FR 15

Disease Resistance - Available from the Department of Plant Pathology,
218 Mumford Hall, University of Illinois,
Urbana, Illinois 61801

Blossom-end Rot of Tomato, Pl. Path. Rept. 906
Fusarium Wilt or "Yellows" of Tomato, Pl. Path. Rept. 929
Verticillium Wilt of Eggplant, Tomatoes, Peppers and other Vegetables,
Pl. Path. Rept. 950

Listing of Variety Recommendations for Home Gardeners - Available from
Office of Publications, 123 Mumford Hall, University of Illinois,
Urbana, Illinois 61801

Illinois Vegetable Garden Guide, Circular 882
Growing Tomatoes at Home, Circular 981
Growing Small Fruits in the Home Garden, Circular 935

1970 VEGETABLE VARIETIES FOR COMMERCIAL GROWERS

Varieties of vegetables are listed on the following pages as a guideline to help growers select improved varieties. These varieties have performed well in Illinois' tests or have proven to be widely adapted. The newest varieties which show promise for Illinois are suggested for trial. Some of the varieties may be new to you. Try them along with some of the ones which appear promising in current catalogs and trade publications. Individual market preferences, season of maturity, methods of culture and varietal adaptation to soil and climatic factors will influence the ultimate selection.

ASPARAGUS

Mary Washington
F₁ Hybrids (trial)

BEANS - SNAP

Fresh Market

Round - Astro
Provider
Tendercrop
Tenderette
Tendergreen

Oval - Contender
Spartan Arrow

Processing

Blue Lake Bush
Corneli 14
Harvester
Tenderette
Tenderwhite

Yellow Bush

Kinghorn Wax
Res. Cherokee

BEANS - LIMA

Fordhook 242
Thorogreen
Thaxter

BEETS

Detroit Short Tip
Mono King
Perfected Detroit
Red King
Royal Red
Ruby Queen

BROCCOLI

Green Comet Hybrid
Spartan Early
Waltham 29 (fall)

BRUSSELS SPROUTS

Jade Cross Hyb.

CABBAGE

Early

CC Cross Hyb.
Emerald Cross Hyb.
Market Dawn Hyb.
Res. Golden Acre YR
Stone Head Hyb.

Main Crop

Danish Ballhead
Greenback YR
King Cole Hyb YR
Market Prize Hyb
Market Topper Hyb
Superette YR

CABBAGE (continued)

Storage

Blue Jacket Hyb
Res. Danish YR

Special

Savoy - Chieftain
Savoy King Hyb

Red - Red Acre YR
Red Danish

CARROTS

Market

Gold Pak
Hi-Pak Hyb
Scarlet Nantes
Waltham Hi-Color
Pioneer (trial)

Processing

Danvers 126
Royal Chantenay
Commander (trial)

CAULIFLOWER

Early Purple (purple)
Royal Purple (purple)
Snowball Strains (white)

CHINESE CABBAGE

Michihli

COLLARDS

Vates

CUCUMBERS

Fresh Market

Challenger Hyb
Gemini Hyb
Poinsett
Saticoy Hyb
Triumph Hyb
Burpee M + M (trial)
Gemini 7 Hyb (trial)
High Mark II (trial)
Marketmore (trial)
Meridian T (trial)

Pickles

WIS SMR 18
WIS SMR 58
Several new F-1 gynoeocious
hybrids as recommended by
the processor

Greenhouse

Bestseller (trial)
Fertila (trial)
Rocket (trial)

EGGPLANT

Black Beauty
Black Magic Hyb
Burpee Hyb
Mission Bell Hyb (early, trial)

HORSERADISH

Common
Swiss

LETTUCE

Early

Bibb

LETTUCE (continued)

Main Crop

Black Seeded Simpson
Grand Rapids
Ruby
Salad Bowl
Slo-Bolt
Summer Bibb
Waldermann's Green

Greenhouse

Bibb
Grand Rapids (tip burn
res. strains)

MUSTARD

Green Wave

MUSKMELON

Burpee Hyb
Gold Star Hyb
Harper Hyb
Harvest Queen
Sampson Hyb
Saticoy Hyb
Supermarket Hyb

OKRA

Dwarf Green Long Pod
Emerald

ONIONS

Sets

Ebenezer (yellow or white)
Portugal

Seed

Aristocrat
Downing Yellow Globe
Early Harvest
Iowa 44
Spartan Era (trial)

ONIONS (continued)

Transplants

Sweet Spanish types (yellow
and white)
Benny's Red (trial)

Bunching

Beltsville Bunching
Japanese Bunching
White Lisbon

PEPPERS (also see page 10)

Keystone Res. Giant
Yolo Wonder L, B
Bell Boy Hybrid (trial)
Liberty Bell (trial)
Lincoln Bell (early, trial)
Titan Hyb (trial)

Special

Sweet Banana
Hungarian Wax
Jalapeo

POTATOES

Cobbler
Kennebec
Norchief
Norgold
Norland
Triumph
Anoka (trial)

PUMPKINS

Connecticut Field
(15-20 lbs.)
Jack O'Lantern (15 lbs.)
Small Sugar (6-8 lbs.)
Spookie (6 lbs.)
Youngs Beauty
(10-15 lbs.)

RADISHES

Cherry Belle
Comet
Red Boy
Scarlet Knight (trial)

SQUASH

Winter

Acorn - Royal, Ebony (Table Queen)

Butternut - Regular (small)
Waltham (medium)
Hercules (large)

Banana, pink, jumbo, rainbow, blue
Buttercup
Delicious - green, golden
Gold Nugget (bush type)
Hubbard - Improved, green, blue,
golden
Kinred
Sweet Meat
Turk's Turban (ornamental)
NK 530

Summer

Early Prolific Straight Neck
Seneca Butterbar Hyb
Seneca Prolific
Zucchini Hyb

SWEET CORN

Early

Earliking
Early Sunglow
Gold Crest
Spring Gold

SWEET CORN (continued)

Main Crop

Gold Cup
Gold Winner
Golden Security
NK 199
Seneca Chief (Roadside)
Gormet (trial)

White

Silver Queen (late)

Bicolor

Barbeque
Butter and Sugar
Honey and Cream
Polkadot (trial)

SWEET POTATO

Centennial
Georgia Red (south)
Nugget

TOMATOES - MARKET

(also see page 11)

Early

Campbell 1327
Cold Set (north)
Galaxy (north)
Heinz 1350
Heinz 1439
Spring Giant Hyb
Springset Hyb (north)
Starfire (north)
Sun-up
Superchief Hyb
Supermarket Hyb

TOMATOES - MARKET (continued)

Staking

Avalanche Hyb
Cardinal Hyb
Fantastic Hyb
Jet Star Hyb
Manhattan Hyb
Moreton Hyb
Superman Hyb
Surprise Hyb

Main Crop

Burpee VF (Hyb)
Delicious
Manapal
Supersonic Hyb
Tom Tom Hyb
Wonder Boy Hyb
Bonus (trial)
Grand Prix (trial)
Ramapo (trial)

TOMATOES - PROCESSING

Campbell 17,19,22
Campbell 146
Eastern States 24
Heinz 1350,1370,1439
Hunts 282
Roma

TOMATOES - PROCESSING (continued)

Mechanical Harvesting

Roma
Centennial (trial)
Redbush (trial)

TOMATOES - GREENHOUSE

Michigan-Ohio Hybrid
Ohio WR-7
Ohio WR-25
Eureka 206 (trial)
Eureka 241 (trial)

TURNIPS

Purple Top White Globe
Just Right Hyb (trial)

WATERMELONS

Charleston Gray 133
Crimson Sweet
Jubilee
Seedless Tri X 313
Sweet Princess

1970 VEGETABLE VARIETY RECOMMENDATIONS FOR PLANT GROWERS

These varieties, selected for use in home gardens, are widely adapted and have good quality. Disease resistant varieties are suggested whenever possible. Copies of this list are available for posting. Write for Hort. VG #15, to the Department of Horticulture, 124 Mumford Hall, University of Illinois, Urbana, Illinois, 61801.

ASPARAGUS -- Mary Washington, Waltham Washington, Tetra.

BROCCOLI -- Spartan Early, Green Comet*.

BRUSSELS SPROUTS -- Jade Cross*.

CABBAGE -- Emerald Cross*, King Cole*, Resistant Golden Acre (Y.R.),
Greenback (Y.R.), Resistant Danish (Y.R.), Market
Price (Y.R.)*, Market Topper*, Market Dawn*.

SPECIALTY CABBAGE -- Savoy King*, Red Acre (early), Red Danish (late).

CAULIFLOWER -- Early Snowball (white), Royal Purple, Early Purple.

CUCUMBER -- Challenger*, Triumph*, Poinsett, Burpless Hybrid (English Type)*.

EGGPLANT -- Black Magic*, Burpee Hybrid*, Black Beauty.

LEEKs -- American Flag.

ONIONS -- Sweet Spanish (yellow, white, red), Ruby, Sweet Spanish Hybrid*.

PEPPERS -- (Mangos) -- Allbig, Calwonder, Yolo Wonder, Keystone Resistant Giant.

SPECIALTY PEPPERS -- Sweet Banana, Hungarian Wax, Sunnybrook.

SWEET POTATOES -- Centennial, Goldrush, Puerto Rico (Unit 1 strain), Nemagold.

TOMATOES (Medium Early) -- Moreton Hybrid*, Cardinal*, Fantastic*,
Heinz 1350, Jet Star*.

TOMATOES (Main Crop) -- Wonder Boy*, Big Boy*, Manapal, Manalucie, Campbell
1327, Heinz 1439, Tom Tom*, Supersonic*, Delicious

TOMATOES (Specialty) -- Red Cherry, Jubilee (Yellow) Roma VF (Paste), Tiny
Tim (Dwarf), Patio (Dwarf)*, Small Fry (Dwarf)*.

* Hybrids

Y.R. - Resistant to Cabbage Yellows Disease

PEPPER VARIETIES

Variety	Disease resistance*	Remarks
EARLY		
Lincoln Bell	TMR	First early, sets good in cool early summer, leaves tend to roll, susceptible to fruit rot (trial)
Bell Boy Hybrid	TMR	New, some drought tolerance, good performance at DSAC
Calwonder		Slightly smaller than California Wonder but more productive for early yields at DSAC
Midway		New, selection from Staddon's Select, may be rough (trial)
Liberty Bell	TMR	Calif. Wonder type, grown mostly in the northeast, sets in cool weather (trial)
MAIN SEASON		
Titan	TMR	(trial)
Keystone Res. Giant	TMR	Large fruit, good production at DSAC
Yolo Wonder	TMR	There are several selections (A,B,L,Y,#43,Select Pak,Improved) Yolo B and L are widely adapted and have performed well at DSAC
Jade	TMR	(trial)

*Tolerant or resistant to tobacco mosaic virus

TOMATOES FOR FRESH MARKET

Variety	Fruit	Resistance	Remarks
FIRST EARLY, GROUND CULTURE (Best adapted for Northern areas)			
Starfire	Medium	...	Medium-large fruit for determinate
Cold Set	Medium	...	Canning, direct seeding
Galaxy	Medium	V	Better foliage than Fireball types
*Sun Up	Medium	V	Univ. of Missouri introduction
*Springset	Medium	V,F	Heavy yielding
EARLY, GROUND CULTURE			
Heinz 1350	Medium	V,F,C	Widely adapted
Campbell 1327	Large	V,F,C	Widely adapted, productive
Heinz 1439	Medium	V,F,C	
Campbell 17, 19	Medium	V,F,C	
*Supermarket	Medium	F	
*Spring Giant	Medium	V,F	
EARLY, STAKED AND PRUNED			
Glamour	Small	C	
*Surprise	Medium	F	Susceptible to blossom-end rot
*Avalanche	Medium	F	Susceptible to blossom-end rot
*Moreton	Medium	...	Susceptible to cracking
*Manhattan	Medium	C	Moreton type
*Cardinal	Large	...	
*Fantastic	Medium	...	
*Superman	Medium	F,V	Trial
*Jet Star	Medium	...	Trial
MAIN CROP, STAKED AND PRUNED			
*Wonder Boy	Large	...	
Delicious	Very large	...	Very large fruit, fairly smooth
Manapal	Medium	V,F	Resistant to several foliage diseases
*Supersonic	Large	V,F	
*Tom Tom	Large	V,F	
*Ramapo Hyb	Large		Trial
*Burpee V F	Medium	V,F	Trial
*Super M	Medium		Trial
*Market King	Large	V,F	Trial
*Terrific	Medium	V,F	Trial

*Hybrid

Abbreviations: C = Fruit cracking; V = Verticillium wilt; F = Fusarium wilt

PERFORMANCE OF GREENHOUSE TOMATOES AND CUCUMBERS

The performance of tomato varieties in Spring 1968 trials at Dixon Springs (plastic greenhouse) and Urbana (glass greenhouse) is compared in the table on page 13. More detailed harvest data on the DSAC planting are on page 14. Ohio WR-25 and Michigan-Ohio Hybrid are currently the standards with which other varieties are compared.

The following are tolerant or resistant to one or more strains of leaf mold: Michiana 138, Tuckcross 520, Mo. 499, and possibly Eureka 241. The fruit of Michiana 138 and Missouri Hybrid 549 averaged smaller in size and Mo. Hybrid 499 and Eureka 241 produced more small tomatoes (less than 4 ounces), compared with Michigan-Ohio Hybrid. The most promising for further trial are Mo. 499, Tuckcross 520, Eureka 206, and Eureka 241.

Vendor and Moto-Red, mosaic tolerant lines, produced small fruit and low yields in this, as well as in previous trials. Three new mosaic resistant lines from Ohio State are included in our Fall 1969 plantings.

A test summer planting of 5 cucumber varieties produced acceptable yields in a relatively short period (following table). Bestseller, Fertila, and Rocket are gynocious hybrid European varieties. The cucumbers develop without pollination and these varieties must not be pollinated by bees. They are suggested for trial for local market situations. Fertila and Rocket may be grown in the spring following bedding plants. The fruit are bitter-free, seedless and of delightful eating quality.

GREENHOUSE CUCUMBERS, SUMMER 1969

Dixon Springs Agricultural Center

Variety	Yield (lb./pl.)	Size of cucumber (oz.)	Length (in.)
Bestseller*	11.2	10.5	12-15
Fertila*	8.4	11.0	12-15
Rocket*	7.6	10.4	12-16
Supreme	7.2	9.9	9-14
MSU 69026	6.1	8.9	8-14

Seeded: April 20, 1969

Set in 10-inch pots: May 2, 1969

Yields: June 16 to July 7

*Seed Source: Stokes Seeds, Inc., Buffalo, New York, 14240

1969 SPRING GREENHOUSE TOMATO VARIETY TRIALS
Dixon Springs Agricultural Center (DSAC) and Urbana

Variety	Fruit color	Average fruit size		Marketable yield		
		DSAC	Urbana	DSAC	Urbana	Average
		(oz.)	(oz.)	(lb./pl.)	(lb./pl.)	(lb./pl.)
Pink Prize	Pink	6.7	--	19.5	--	19.5
Mo 499	Pink	5.8	6.1	19.9	14.6	17.3
Tuckcross 520	Red	--	6.9	--	16.1	16.1
Michigan-Ohio Hyb.	Red	5.3	5.0	18.8	11.9	15.4
Michiana 138	Red	4.9	5.3	16.5	14.3	15.4
Eureka 241	Red	5.3	5.9	17.2	12.8	15.0
Mo 549	Pink	5.2	4.8	16.6	11.6	14.1
Ohio WR-25	Pink	6.5	5.8	16.6	11.5	14.1
Eureka 206	Pink	6.0	5.1	17.4	9.5	13.5
Vendor	Red	--	4.8	--	11.1	11.1
Moto-Red	Red	--	5.0	--	8.3	8.3
		<u>DSAC</u>		<u>Urbana</u>		
Seeded:		12-5-68		11-26-68		
Planted:		1-16-69		1-17-69		
Harvest Period:		4-17-69 to 7-10-69		4-24-69 to 7-15-69		

1969 SPRING GREENHOUSE TOMATO TRIAL

Dixon Springs Agricultural Center

Variety	Fruit color	Earliness (Date 2#/pl. harvested)	Date 1/2 crop harvested	Yield			Fruit size (oz.)
				U.S.NO.1	Small	Total	
				(lb./pl.)			
Pink Prize	Pink	5-12	6-8	11.2	1.5	19.5	6.7
Mich-Ohio Hyb	Red	5-5	6-5	10.9	3.4	18.8	5.3
Eureka Hyb 206	Pink	5-15	6-8	10.9	1.4	17.4	6.0
Missouri 499	Pink	5-19	6-8	9.8	3.3	19.9	5.8
Eureka Hyb 241	Red	5-5	6-2	9.6	3.4	17.2	5.3
Ohio WR-25	Pink	5-5	6-2	8.9	2.6	16.6	6.5
Michiana	Red	5-12	6-8	8.6	4.3	16.5	4.9
Ohio Ho 1342	Pink	5-19	6-8	8.5	1.8	15.8	6.5
Missouri 549	Pink	5-12	5-29	6.5	4.1	16.6	5.2
Ohio Ho 1343	Pink	5-19	6-5	6.0	2.6	13.4	5.8

Seeded: 12-5-68

Planted: 1-16-69

Harvested: 4-17-69 to 7-10-69

1969 PEPPER VARIETY TRIAL

Dixon Springs Agricultural Center

Variety	Early yield (7-14 to 7-30) (bu./A.)	Season yield (7-14 to 9-24) (bu./A.)	Average fruit size (oz.)
Bell Boy Hybrid*	541	579	3.2
Sweet Banana	470	1090	1.3
Yolo Select Pak	462	893	4.1
Tasty	429	884	3.8
Liberty Bell	371	783	3.8
Wonder Giant - MR	371	821	4.7
Yolo Wonder L	370	612	4.1
Resistant Wonder	348	695	4.9
Titan MR	332	770	4.6
Calwonder	328	422	4.7
Hungarian Wax	326	770	1.0
Jade	325	915	4.0
Early Calwonder	319	841	4.2
Sweet Bullnose	306	392	4.7
Yolo Wonder B	305	764	4.4
Select Calif. Wonder	300	789	4.1
Yolo Wonder #43	289	728	4.5
Bellringer	273	629	4.2
Midway	229	571	4.3
Midway MR	193	409	4.1
Lincoln Bell	178	248	4.5
Keystone RG	177	738	3.7

Seeded: 4-2-69

Planted: 5-7-69

*Possible mixture, several off-type plants

PERFORMANCE OF TOMATO VARIETIES, GROUND BED CULTURE, 1969

Dixon Springs Agricultural Center

Variety	Early marketable yield (7-8 to 7-21) (lb./pl.)	Season yield (7-8 to 8-4)		Fruit size (oz.)
		U.S. No. 1 (lb./pl.)	Marketable (lb./pl.)	
Spring Giant	8.6	4.4	11.9	7.9
Springset	6.0	3.2	6.9	6.6
Starfire	6.0	2.1	6.0	9.4
Sun-up	5.9	2.3	7.1	6.7
Campbell 1327	5.3	3.2	7.3	8.0
Early Bird	4.9	2.3	7.9	6.0
Early Detroit	4.5	3.1	9.4	6.0
Superchief	4.2	3.7	11.4	8.2
Heinz 1350	3.9	2.1	6.7	6.5
Supermarket	3.4	3.5	10.5	6.7
Jumbo Gem	3.2	1.1	6.0	13.9
Double Rich	2.6	0.6	5.7	5.0
Bonus	2.1	1.1	7.7	8.6
Manapal	2.0	2.7	6.1	7.6
Caro Red	1.8	0.6	3.9	7.9
Tropi-Gro	1.5	1.3	3.3	9.1
Grand Prix	0.5	0.5	2.9	10.4

There were large losses due to ground rots which occurred during prolonged periods of wet weather in 1969.

Seeded: 4-2-69
Planted: 5-5-69
Spacing: 6 x 3 feet

PERFORMANCE OF STAKED TOMATO VARIETIES, 1969

Dixon Springs Agricultural Center

Variety	Early marketable yield (7-8 to 7-21) (lb./pl.)	Season yield (7-8 to 8-4)		Fruit size (oz.)	Blossom end rot (percent)
		U.S. No. 1 (lb./pl.)	Marketable (lb./pl.)		
Pink Lady	7.6	7.7	12.1	7.2	5.4
Big Early	7.5	5.3	11.6	9.3	1.0
Manhattan	7.4	8.4	11.4	7.2	1.0
Moreton	7.0	6.3	11.7	7.9	2.0
Jet Star	6.8	8.6	12.1	9.3	1.5
Surprise	6.6	6.1	10.1	7.7	10.6
Cardinal	6.5	8.4	11.3	8.4	7.1
Avalanche	6.4	5.0	8.8	8.4	14.4
Pink Jumbo	6.2	5.7	10.5	9.1	5.7
LW 27/137	6.1	8.0	11.3	8.5	5.4
Superman	6.1	6.8	11.1	7.8	0
Terrific	5.7	8.6	11.5	9.0	5.4
Tom Tom	5.6	8.7	12.8	8.8	3.2
Supersonic	5.6	8.5	11.7	10.0	10.1
Super Colossal	5.5	1.4	7.7	14.6	0
Fantastic	5.4	7.7	10.5	6.4	14.2
Delicious	5.4	5.2	11.2	18.4	0
Ponderosa	5.1	1.0	7.4	8.5	0
Ramapo	4.9	7.2	13.1	10.6	2.2
Wonder Boy	4.7	8.7	11.9	9.6	3.3
Market King	4.6	7.4	11.6	10.3	4.1
Floradel	4.2	6.4	10.9	10.2	0
Big Boy	4.2	8.5	10.4	8.9	22.2
Super M	4.0	8.9	12.5	8.5	14.3
Burpee VF	4.0	5.3	9.4	9.2	13.5
Manapal	3.0	5.7	9.9	8.8	1.2
Globe	3.0	3.1	6.2	7.8	34.1
Golden Queen	2.7	3.1	6.0	7.4	25.7
Jubilee	2.5	3.0	5.3	11.6	34.5

Seeded: 4-2-69

Planted: 5-6-69

Spacing: 6 x 2 feet, pruned to 2 stems

MARKETABLE YIELD OF 16 TOMATO VARIETIES AND HYBRIDS, 1964-1969

Dixon Springs Agricultural Center

Variety	Marketable yield						Average
	1964	1965	1966	1967	1968	1969	
	(lb./pl.)						
Tom Tom	--	14.6	6.7	13.5	3.1	12.8	10.1
Ramapo	--	--	9.2	12.1	4.8	13.1	9.8
Supersonic	--	--	--	12.1	4.8	11.7	9.5
Manhattan	--	14.3	5.4	11.7	3.5	11.4	9.3
Cardinal	4.3	11.5	6.3	12.2	--	11.3	9.1
Wonder Boy	5.6	12.6	6.2	9.8	4.4	11.9	8.4
Moreton	8.0	10.8	4.5	11.3	3.6	11.7	8.3
Manapal	7.7	10.9	5.2	11.0	4.6	9.9	8.2
Fantastic	4.4	11.4	5.4	12.1	4.6	10.5	8.1
Floradel	--	--	4.8	11.4	4.6	10.9	7.9
Pink Lady	6.2	9.9	5.5	8.4	3.4	12.1	7.6
Superman	--	--	6.6	--	4.3	11.1	7.3
Surprise	5.9	7.6	--	8.5	1.7	10.1	6.8
Big Boy	4.8	--	5.7	8.1	2.4	10.4	6.3
Avalanche	5.2	8.7	5.1	7.0	2.5	8.8	6.2
Giant King	--	--	4.1	9.4	2.7	--	5.4

Plants staked and pruned to 2 stems

LOSSES DUE TO BLOSSOM-END ROT OF 16 TOMATO CULTIVARS
1964-1969

Dixon Springs Agricultural Center

Cultivar	Percent of tomatoes with blossom-end rot						Mean
	1964	1965	1966	1967	1968	1969	
Avalanche Hybrid	49	54	35	30	67	14	41.5
Big Boy Hybrid	17	--	18	21	57	22	27.0
Cardinal Hybrid	37	24	23	10	42	7	23.8
Fantastic Hybrid	17	17	19	19	42	14	21.3
Floradel	--	--	6	0	18	0	6.0
Giant King	--	--	21	21	38	--	26.7
Manapal	4	1	2	1	15	1	4.0
Manhattan Hybrid	--	8	6	2	19	1	7.2
Moreton Hybrid	4	38	6	3	24	2	12.8
Pink Lady Hybrid	9	46	18	14	45	5	22.8
Ramapo	--	--	17	8	39	2	16.5
Superman Hybrid	--	--	--	25	26	0	17.0
Supersonic Hybrid	--	--	--	10	30	10	16.7
Surprise Hybrid	36	70	--	37	63	11	43.4
Tom Tom Hybrid	--	22	21	7	27	3	16.0
Wonder Boy Hybrid	9	35	24	25	36	3	22.0
Mean	20.2	31.5	16.6	14.6	36.8	6.3	20.3

PERFORMANCE OF SWEET CORN VARIETIES

Dixon Springs Agricultural Center

Variety	Harvest date	Marketable yield 80 foot row		Length of ear	Husk protection*
		Number of ears	Weight (in husk)		
		(no.)	(lb.)	(in.)	
Tasty-Vee	7-16	41	24.0	7½-8	VG
Seneca 260	7-16	54	39.0	8	E
Seneca Star	7-16	54	38.7	8 -8½	G
Robson E-110	7-20	97	57.9	7½-8	E
Gold Winner	7-21	60	36.0	7½-8	E
Gold Cup	7-22	122	61.5	7½-8	VG
Seneca Chief	7-22	58	31.0	7½	F
Seneca Scout	7-22	69	43.3	7½	E
Robson 165	7-29	95	59.4	8½	VG
Silver Queen	7-31	71	49.3	8 -8½	VG
Gold Queen	7-31	83	66.3	8	F

Planted: 5-13-69

*Rating: F = Fair, G = Good, VG = Very Good, E = Excellent

PERFORMANCE OF SWEET CORN VARIETIES
Robert Fournie Farm, Collinsville, Illinois

Variety	Growing season	No. of marketable ears*		Average no. ears per plant***
		Planted April 22**	Planted May 6	
Royal Crest	64	0	8	0.24
Sunney Vee	65	4	29	0.87
Earliking	66	4	19	0.58
North Star	67	7	26	0.69
Spring Gold	67	11	34	0.98
Spring Bounty	69	10	36	1.12
Earlibelle	71	23	41	1.08
Northern Belle	74	25	39	1.40
Northern Belle L	76	21	26	1.05
Gold Winner	79	30	19	1.14
Gold Cup	80	34	35	1.57
Seneca Chief	81	25	12	0.88
Gold Eagle	81	39	36	1.67

*Yield from three reps of 10 plants each

**Bird damage caused a low plant population in the early planting

***Based on plant stand

PERFORMANCE OF THE 'THORNFREE' BLACKBERRY

'Thornfree,' a semi-upright thornless blackberry, was introduced in 1966 by D. H. Scott and D. P. Ink, Crops Research Division, U. S. Department of Agriculture, Beltsville, Maryland. The cultivar has been outstanding in Illinois tests for several years.

Performance data from plantings established at the Pomology Research Center, Urbana, and at the Dixon Springs Agricultural Center (DSAC), Simpson, in 1965 are summarized on page 23. The yields are averages of 5 plants spaced 4 feet apart in rows 6 feet apart at the DSAC and 6 feet apart in rows 10 feet apart at Urbana, all trained to a 2-wire vertical trellis. A sawdust mulch was used at Dixon Springs. The canes overwintered on the ground each year at Urbana and in 1966 at the DSAC. In 1967 and 1968 the canes remained tied to the trellis throughout the winter at DSAC.

At both locations, the plants were relatively slow in becoming established and no fruit records were obtained in 1966, although some fruit was produced. Once the plants became established they were vigorous and semi-upright, needing support on a trellis or stake. Many of the primocanes were 8 to 10 feet or more long and 1 to 1 1/2 inches in diameter at the base.

The fruit matured during late summer, about a month later than "Darrow" and the early wild types. Berries were large, fairly firm, blunt conic shape, of tart flavor, and borne on fruiting laterals having as many as 30 to 40 fruits each. Fruit maturation extended over a fairly long period with 35 to 40 days between the first and last pickings. Yields were generally good at both locations but constantly better at Dixon Springs. The yields at Urbana reflected some winter injury each year and rather severe injury during the 1967-68 winter. There was virtually no winter injury at the DSAC. The plants were set too close together to provide adequate space for mature plants. A plant spacing of 8 to 10 feet apart in rows 10 feet apart is recommended.

One private grower in southern Illinois planted 18 rooted tips in the spring of 1967, spaced 6 feet apart in the row. These plants yielded 67 quarts in 1968 and 468 quarts in 1969 (see table on page 23).

'Thornfree' is recommended for home gardens, local markets, and pick your own selling for southern Illinois. Although this cultivar has shown very little injury most winters at Urbana, it appears to be about as hardy to winter cold as peach fruit buds and should be covered for winter protection from central Illinois northward for dependable performance.

PERFORMANCE OF 'THORNFREE' BLACKBERRY IN CENTRAL AND SOUTHERN ILLINOIS
1967-69

Location	Year	Yield (qt./pl.)	Berry size (gm./berry)	Harvest period
Central Illinois ^{a/}	1967	8.1	3.52	7-27 to 9-5
	1968	2.6	4.35	7-30 to 9-3
	1969	15.2	4.71	7-31 to 9-12
Southern Illinois ^{b/}	1967	13.9	3.77	7-19 to 8-28
	1968	10.5	4.64	7-15 to 8-21
	1969	16.3	3.85	7-23 to 8-25

^{a/} Pomology Research Center, Urbana

^{b/} Dixon Springs Agricultural Center, Simpson

YIELD OF THORNFREE BLACKBERRY, 1969

Gerald Klink, Brownfield

Week of	Quarts harvested
July 20	14
July 28	71
Aug. 3	121
Aug. 10	104
Aug. 18	100
Aug. 25	40
Sept. 1	18
Total	468

Planted: Spring, 1967
Spacing: 6 ft. apart in the row
Number of plants: 18
1968 yield: 67 quarts
Sawdust mulch

BLUEBERRY VARIETIES, 1969
Dixon Springs Agricultural Center

Variety	Picking Season	Date 1/2 crop harvested	Yield (pt./pl.)	Average berry size (no./cup)	Range
Highbush Varieties					
Earliblue	6-12 to 6-26	6-20	5.0	134	107-175
Collins	6-12 to 7-3	6-23	8.7	107	92-127
Blueray	6-20 to 7-17	6-26	11.1	84	74-108
Bluecrop	6-20 to 7-22	7-2	7.0	105	77-138
Jersey	6-20 to 7-22	7-2	15.0	112	95-134
Coville	6-23 to 8-1	7-7	10.4	89	64-130
Herbert	6-23 to 8-1	7-10	16.3	92	62-161
Rabbiteye Varieties					
Tifblue	7-22 to 9-4	8-7	23.3	137	97-187
Homebell	7-22 to 9-5	8-7	19.5	157	103-209

Planted: 4-26-65

Sawdust Mulch

Bird control measures: None

For varietal descriptions and summary of performance of blueberry varieties at Urbana and DSAC see "Performance of Highbush Blueberry Varieties," Transactions Illinois Hort. Society 102:131-136, 1969.

Urbana, Illinois

January, 1970

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